DOCUMENT RESUME

ED 400 111 PS 024 659

AUTHOR Harrison, Linda; Ungerer, Judy
TITLE Child Care Experience and Attachment Security as Predictors of Children's Social Adjustment at Age Two-and-a-Half.
PUB DATE Aug 96
NOTE 12p.; Paper presented at the Biennial Meetings of the International Society for the Study of Behavioural Development (14th, Quebec City, Quebec, Canada, August 12-16, 1996).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adjustment (to Environment); *Attachment Behavior; *Caregiver Child Relationship; Child Behavior; Emotional Adjustment; Emotional Development; Emotional Response; Foreign Countries; Infant Behavior; Infant Care; Infants; Interpersonal Relationship; Mothers; *Parent Child Relationship; Parent Influence; Parent Role; Peer Relationship; Separation Anxiety; *Social Adjustment; *Social Behavior; Toddlers
IDENTIFIERS Australia

ABSTRACT

This study addressed the argument that early child care constitutes a risk to children's social adaptation, and that for high-risk samples this effect depends on the security of the infant-mother attachment relationship. A longitudinal investigation of 135 first-born children in a low-risk sample was conducted to discern the contribution of child care experience and security of infant-mother attachment on child social competence at age 2.5 years. Detailed descriptions of the families' use of parental and nonparental care from birth to 2.5 years were obtained through parent interviews at infant-age 4, 12, and 30 months. Security of attachment was assessed in the Strange Situation procedure (M. Ainsworth and others) at 12 months. Children's levels of social interaction with adult carers and profiles of social adaptability with peers were derived from observational measures of peer play and child initiations to adults and peers while at play with a familiar peer group. Results suggested that for a low-risk, representative sample, attachment security and early experience of child care are not predictors of child social adaptability. Social interaction patterns in the play setting were most influenced by setting characteristics, including the quality of care, the presence or absence of the mother, the number of children, and by children's patterns of attendance. Contains 10 references. (Author)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 400 111

CHILD CARE EXPERIENCE AND ATTACHMENT SECURITY AS PREDICTORS OF CHILDREN'S SOCIAL ADJUSTMENT AT AGE TWO-AND-A-HALF

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Linda Harrison
University of Melbourne

Judy Ungerer
Macquarie University

PS 024659

Poster presented at the XIVth Biennial ISSBD Conference,
August 1996, Quebec City, Canada

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
L. Harrison
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Please address correspondence to :
Linda Harrison, Dept. of Early Childhood Studies, The University of Melbourne, Locked Bag 10, 4 Madden Grove, Kew, Victoria 3101, Australia
email : l.harrison@edfac.unimelb.edu.au

BEST COPY AVAILABLE

ABSTRACT

This study addresses the argument that early child care constitutes a risk to children's social adaptation (Belsky, 1990), and that for high risk samples this effect depends on the security of the infant-mother attachment relationship (Egeland & Hiester,1995). A longitudinal investigation of 135 first-born children in a low-risk sample was conducted to discern the contribution of child care experience and security of infant-mother attachment on child social competence at age 2 1/2 years. Detailed descriptions of the families' use of parental and non-parental care from birth to 2 1/2 years were obtained through parent interviews at 4, 12, and 30 months. Security of attachment was assessed in the Strange Situation procedure at 12 months. Children's levels of social interaction with adult carers, and profiles of social adaptability with peers were derived from observational measures of peer play and child initiations to adults and peers, while at play with a familiar peer group. Results suggest that for a low-risk, representative sample attachment security and early experience of child care are not predictors of child social adaptability. Social interaction patterns in the play setting were most influenced by setting characteristics, including quality of care, the presence or absence of the mother, the number of children, and by children's patterns of attendance.

RATIONALE

Recent developments in research into the negative effects of infant day care on children's security of attachment and subsequent social adaptation have postulated a "cumulative risk hypothesis", ie. that families at moderate to high risk are more likely to be negatively affected by early out-of-home care (Belsky, Woodworth & Crnic, 1996). The effects of infant day care in such samples may be compounded by poor quality or unstable care arrangements (NICHD, 1996), and seems to be mediated by the security of the attachment relationship with the mother (Vaughn, Deane & Waters, 1985; Egeland & Heister, 1995). Few studies, however, have examined the effects of early day care beyond infancy and into the preschool and toddler year in a low-risk sample. Furthermore, evidence of an interactive effect between attachment security and early child care in low risk samples has not been clarified.

GOALS

1. To describe dimensions of children's social adjustment with peers and adults, based on observational measures of child interaction in a familiar peer setting.

2. To examine the associations between security of infant-mother attachment at age 12 months and varying levels of children's experience of non-maternal care (minimal, part-time and full-time) in the first year of life as predictors of child social adjustment at age 2 1/2 years in a low risk sample.

METHOD

SUBJECTS

135 mothers, recruited from obstetric clinics in Sydney, Australia, and their first-born children. The sample was stratified on the basis of maternal defensive style to ensure that it was representative of the broader, normal community. Mothers' ages ranged from 17 to 41 years (mean 27.8), and fathers from 17 to 45 (mean 30.8). Educational status was broadly distributed; 16% less than high school, 22% high school certificate, 62% technical or university qualifications.

PROCEDURES

1. Child Care History

Mother interviews at infant-age 4, 12 and 30 months provided a record of children's experience of non-maternal care. Care was defined as minimum (10 hours per week or less), part-time (11 to 30 hours per week), full-time (over 30 hours per week).

Distributions were :

27 had none or minimum hours of care before 30 months

35 had none/minimum care before 12 months and part-time or full-time care between 12 and 30 months

42 had part-time care before 12 months and part-time or full-time care between 12 and 30 months

28 had full-time care before 12 months and full-time or part-time care between 12 and 30 months

3 had part-time or full-time care before 12 months and none or minimum hours of care between 12 and 30 months

These groupings were collapsed to form three categories:

1. Exclusive maternal care, N= 62,
children receiving none or less than 11 hours/week of child care before 12 months

2. Early part-time child care, N=42,
children receiving 11-30 hours/week of child care before 12 months and continuous care to 30 months

3. Early full-time child care, N=28,
children receiving over 30 hours/week of child care before 12 months and continuous care to 30 months

2. Security of Infant-Mother Attachment

At age 12 months the quality of the infant-mother attachment relationship was assessed using the Strange Situation procedure (Ainsworth, Blehar,Waters, & Wall,1978). Raters were trained in the use of the scoring system by Dr. R. Marvin, University of Virginia, and achieved the required reliability. D classifications were identified using Main and Solomon's (1990) procedures and confirmed by Dr. R. Marvin.

Attachment classifications	N	%
A Insecure - Avoidant	11	.08
B Secure	84	.62
C Insecure-Ambivalent	30	.22
D Disorganised, A/C	10	.08

3. Child Observation

At age 30 months, 122 children (63 boys) were observed in a familiar play setting with adult carers and at least one other child. Time-sampling was carried out over a 2-3 hour period.

Observation settings were as follows :

53% of children were in centre-based preschools or child care;

13% were in home-based child care, preschool or Family Day Care;

34% were seen in playgroups, for mothers and children.

Observation settings were further defined by :

the number of children involved,

the presence or absence of the mother,

the number of days per week that the child attended.

Quality of care was assessed using Belsky and Walker's Spot Checklist which gave mean positive and negative scores, Howes and Clemente's (1994) adult interaction rating scale which was used to calculate the mean level of adult responsiveness across total number of observations. Harms and Clifford's ECERS and FDCERS were used to provide an overall rating of quality in centre care and home-based care settings. ECERS and FDCERS scores were highly correlated with positive (rho= .67**) and negative (rho= -.51**) spot checklist scores.

3.1 Social Play

Observations were coded according to Howes's (1980) Peer Play Rating Scale : play with adult, unoccupied, solitary play, non-interactive parallel play(1), parallel play with mutual regard(2), social play, reciprocal play(4),cooperative play(5). Children's involvement in pretend play was also noted. Scores used for analysis of children's play ratings were calculated as a percent of the total time spent in play, and combined to give scores for solitary play, parallel play (1+2), and complex-social pretend (complex play (4+5) + pretend play with peers).

3.2 Social Initiatives to Peers

The type and successfulness of children's social initiatives to peers were assessed using a procedure based on Wright's (1983) revision of White and Watt's (1973) Manual for Assessing Social Abilities of Children. Positive and negative initiatives were recorded as successful or unsuccessful. Scores for social initiatives to peers were standardised to a percent occurrence for each behaviour.

Positive child-peer initiatives were defined as:

seeks attention from peer, uses peer as a resource (seeks help or information),

helps peer, leads peers in a positive way

BEST COPY AVAILABLE

Negative child-peer initiatives were defined as:
leads peer in a negative way (ie. tries to stop, redirect peer), initiates play in a hostile way, competes with peer for equipment, or for adult attention.

Additional categories of peer interaction were defined as :
watches peer, imitates peer, follows peer's lead, refuses to follow peer's lead,
acts as a model for peer (scored when peer spontaneously joined in with, imitated or followed the subject child's actions)

Child affective expression was also assessed :
shows positive affect to peer,
demonstrates verbal or physical hostility to peer.

3.3 Social Initiatives to Adults

The type and successfulness of children's social initiatives to adults were assessed using a procedure based on Wright's (1983) revision of White and Watt's (1973) Manual for Assessing Social Abilities of Children. Behaviours were coded as to whether each bid was successful or unsuccessful. Scores for social initiatives to adults were standardised to a percent occurrence for each behaviour.

Positive behaviours were defined as :
seeking attention, by positive means (showing, greeting), seeking to use the adult as an instrumental resource (asking for information, help, food), initiating social interaction (verbal/physical/pretend game), seeking to help the adult (showing concern, sharing)

Negative behaviours were defined as :
seeking attention by negative means (showing off, shouting),
seeking to control the adult (contradicting, stopping play),

Child affective expression were recorded :
seeking emotional support or comfort when distressed; showing positive affect towards the adult, showing negative affect (physical or verbal hostility).

RESULTS

SOCIAL ADJUSTMENT WITH PEERS

1. Variability of Child Social Behaviour with Peers

Sex of Child

Girls had higher mean scores for watching ($p<.01$), helping peers ($p<.01$), and leading peers in a negative way ($p<.05$). Boys were higher on initiates play in a hostile way ($p<.05$).
On other measures there was no difference between mean scores for boys and girls.

Observation Setting

Comparison of means revealed that setting characteristics and child attendance patterns affected some measures of child interaction with peers. Regression analysis, using manova, indicated that scores for watches, imitates, follows, and acts as a model, were a function of the number of days attended and the total number of children in the setting. Scores for imitates and shows positive affect varied significantly with the presence or absence of the mother. Scores for follows and competes with peers were significantly associated with measures of quality.

2. Profiles of Child Social Adjustment with Peers

Social adjustment profiles were constructed after adjusting children's peer interaction scores for the effects of setting variables (presence/absence of the mother, number of children present, number of days attended per week, and quality - average positive score, average negative score, mean caregiver rating score). Residual scores for these eleven peer interaction variables (watch peer, seek attention, positive lead, negative lead, competes for equipment, follows peer, imitates peer, refuses peer's lead, acts as a model for peer, shows hostility to peer, and shows positive affect to peer) were subject to cluster analysis, a multivariate technique for grouping individuals who exhibit similar profiles across measures. A cluster solution was chosen to give four clusters reflecting children's overall level of involvement, and characteristic style of interacting with peers. Two children were omitted who did not fit comfortably into any of these groups.

Cluster 1. Uninvolved - watchful but nonresponsive N=19
(characterised by high scores for watching, moderate levels of refusing peer initiatives, low scores for compete and shows hostility). These children were interested in peers, but showed the lowest level of initiating or responding to opportunities for peer play.

Cluster 2. Low Involved - competitive/negative pattern N=19
(characterised by high scores for hostility, competing for equipment, and imitating peers; moderate for watches; low scores for lead peers in a positive way, follows peers and acts as a model). These children were toy-focused rather than peer-focused, and their interaction with

peers was characteristically negative.

Cluster 3. Low Involved - positive, interested pattern N=47
(characterised by high levels of watching, seeks attention and shows positive affect; moderate levels of imitate, follow and refuse peer; low levels for compete). These children were interested in their peers, but showed a mixed pattern of response; they were "sideliners", not yet actively involved in peer play.

Cluster 4. Involved - attractive to peers, independent N=34
(characterised by high scores for leading peers, in both positive and negative ways, following peers and acts as a model; moderate scores for hostility, competes and refuses peer; low scores for watches). These children were skilled at organising other children, and were attractive to others; they combined supportive involvement and independence in their interactions with peers.

Cluster groups were validated by testing the hypothesis that the "involved" group would score highest on levels of complex play, while "uninvolved" and "low involved" groups would score highest on levels of solitary and parallel play. Mean scores on these measures ranked in the manner predicted (Table 1).

Table 1. Cluster Group Category by Level of Peer Play

	1 Uninvolved	2 Low Inv. Negative	3 Low Inv. Positive	4 Involved	Sign. diff.
	N=19	N=19	N=47	N=34	$p < .05$
Solitary Play	16.9*	17.2*	13.9	8.2*	4 < 1,2
Parallel Play	28.9*	27.7	26.8*	18.5*	4 < 1,3
Complex Social Pretend	11.7*	12.9*	20.7*	33.5*	4 > 1,2,3

3. Attachment Classification, Experience of Early Non-Maternal Care and Social Adjustment with Peers

The associations between security of attachment, experience of exclusive maternal care or early child care, and child social adjustment were tested using chi-square analysis. The distribution of secure and insecure children did not predict peer cluster group classification Neither did children's history of maternal and non-maternal child care. Further analysis was

conducted to assess any within-group effect of early non-maternal care and security of infant-mother attachment on children's observed profile of social adjustment. Table 2 shows the percent distributions of secure and insecurely-attached children for exclusive maternal care, early part-time, and early full-time child care across the four cluster group categories. Distribution did not differ from what would be expected by chance. Children in each of the four cluster groups were equally represented by categories of secure, insecure, exclusive maternal care, and early child care groups.

Table 2. Cluster Group Category by Child Care Group and Attachment Classification (Percent of Children)

		1 Uninvolved	2 Low Inv. Negative	3 Low Inv. Positive	4 Involved	
		N=18	N=18	N=45	N=34	
Exclusive Maternal Care	S	.15	.15	.31	.39	N=26
	I	.18	.11	.50	.21	N=28
Part-time Child Care	S	.22	.15	.44	.19	N=27
	I	.10	.30	.40	.20	N=10
Full-time Child Care	S	.00	.22	.33	.44	N=18
	I	.33	.00	.17	.50	N= 6

(S, securely attached; I, insecurely attached)

SOCIAL ADJUSTMENT WITH ADULTS

1. Categories of Child Social Behaviour with Adults

Factor analysis of successful and unsuccessful child initiating behaviours and affective behaviours to adults suggested that child social interaction to adults could be represented by two categories :

Positive/Effective (sum of successful bids for positive attention, uses the adult as a resource, social play, and helps adult, plus shows positive affect)

Negative/Controlling

(sum of controls adult, hostile to adult, and successful bids to seek attention in a negative way).

2. Variability of Social Behaviour to Adults

Sex of Child

There were no differences in mean scores for boys and girls.

BEST COPY AVAILABLE

Observation Setting

Analysis by correlations and comparison of means revealed that child behaviours to adults were highly influenced by setting characteristics and child attendance patterns. Positive/effective interaction scores were positively correlated with positive measures of quality (mean positive score, rho = .417**, mean caregiver rating scale, rho =.189*) and negatively correlated with negative quality (rho = -.207*). Levels of positive interaction were also negatively correlated with the number of children in the setting (rho= -.302*). Negative/competitive interaction was negatively associated with the number of children in the setting (rho= -.220*). Mean negative scores were also higher in settings where the mother was present (p=.007).

3. Attachment Classification, Experience of Early Non-Maternal Care and Social Adjustment with Adults

Scores for Positive/Effective and Negative/Controlling behaviour to adults were subject to regression analysis, using manova, to control for the effects of setting characteristics and child attendance patterns. Attachment security, child care experience, and combined child care/attachment groups were entered separately to assess their unique contributions to variations in the outcome measures. Child scores for Positive/Effective behaviour and Negative/Controlling behaviours to adults were not associated with children's security of attachment, early experience of maternal or non-maternal care, or with combined security/child care classification. Mean scores indicated no difference within child care experience/attachment groups (Table 3).

Table 3. Child Social Adjustment with Adults by Child Care Group and Attachment Classification (Mean scores)

		Positive/Effective		Negative/Controlling	
		X	S.D.	X	S.D
Exclusive Maternal Care N=62	S	20.00	(11.7)	1.46	(2.5)
	I	22.91	(11.8)	0.98	(1.3)
Part-time Child Care N=42	S	21.69	(12.2)	0.90	(1.3)
	I	25.53	(17.7)	1.25	(2.3)
Full-time Child Care N=28	S	18.19	(10.4)	1.11	(2.7)
	I	15.60	(7.2)	2.28	(4.2)

(S, securely attached; I, insecurely attached)

CONCLUSIONS

This study has used naturalistic observations of child social behaviour with peers in a familiar setting to construct peer profile clusters which describe characteristic patterns of children's initiatives and responses to peers. Four clusters were identified, which differentiated children's levels of social involvement with their peers, and which were validated against a recognised measure of peer play (Howes, 1990). Children's social adjustment, as described by cluster group membership, was not found to be associated with security of the infant-mother attachment relationship or with children's early experience of maternal or non-maternal child care. Analysis of the within-group effects of child care experience and attachment security confirmed that these factors were not predictors of social adjustment with peers at age 2 1/2 years. Similar results were obtained for children's initiatives and behaviours towards adults. Composite measures of children's positive/effective and negative/controlling bids to adults did not differ by security, child care experience or within-group early care/security classifications.

Our results present a useful comparison against studies of high risk samples which have reported an association between infant day care and security of attachment on children's subsequent adaptation with peers. Ours was a low risk, representative sample, who used early child care arrangements which may be less variable in quality than in high risk families. Our study also identified concurrent factors in the play or child care setting as being most influential on social behaviours. Quality of care, size of the group, children's attendance patterns, and the presence of the mother, were highly significant factors associated with variability in child social behaviour. Our work points to the difficulties associated with assessing predictive effects in naturalistic settings, where context plays a determining role in children's social adjustment and adaptability.

REFERENCES

Ainsworth, M., Blehar, M., Waters, E. & Wall, S. (1978). Patterns of Attachment. Hillsdale, NJ : Lawrence Erlbaum Associates.

Andrews, G., Pollock, C. & Stewart, G. (1989). The determination of defense style by questionnaire. Archives of General Psychiatry, 46, 455-460.

Belsky, J. (1990). Parental and nonparental child care and children's socio-emotional development : A decade in review. Journal of Marriage and the Family, 52, 885-903.

Belsky, J., Woodworth, S. & Crnic, K. (1996). Trouble in the second year : Three questions about family interaction. Child Development, 67, 556-578.

Egeland, B. & Hiester, M. (1995). The long-term consequences of infant day-care and mother-infant attachment. Child Development, 66, 474-485.

Howes, C. and Clemente, D. (1994) Adult socialisation of children's play in child care. In H. Goelman & E. Vineberg Jacobs (Eds.). Children's Play in Child Care Settings. Albany : State University of New York Press.

Main, M. & Solomon, J. (1990). Procedures for identifying infants as disorganised/disoriented during the Ainsworth Strange Situation. In Greenberg, M., Cicchetti, D. & Cummings, E. (Eds.). Attachment in the Preschool Years : Theory, Research and Intervention (pp.134-146). Chicago IL: University of Chicago Press.

Vaughn, B., Deane, K. &Waters, E. (1985). The impact of out-of-home care on child-mother attachment quality : Another look at some enduring Questions. In I. Bretherton & E. Waters (Eds.). Growing points of attachment theory and research. Monographs of the Society for Research in Child Development, 50 (1-2, Serial No.209, p.110-135).

White, B. & Watts, J. (1973). Experience and Enviroment (Vol. 1). Englewood Cliffs, NJ : Prentice-Hall.

Wright, M. (1983). A Canadian Approach. Compensatory Education in the Preschool. Michigan : The High/Scope Press.